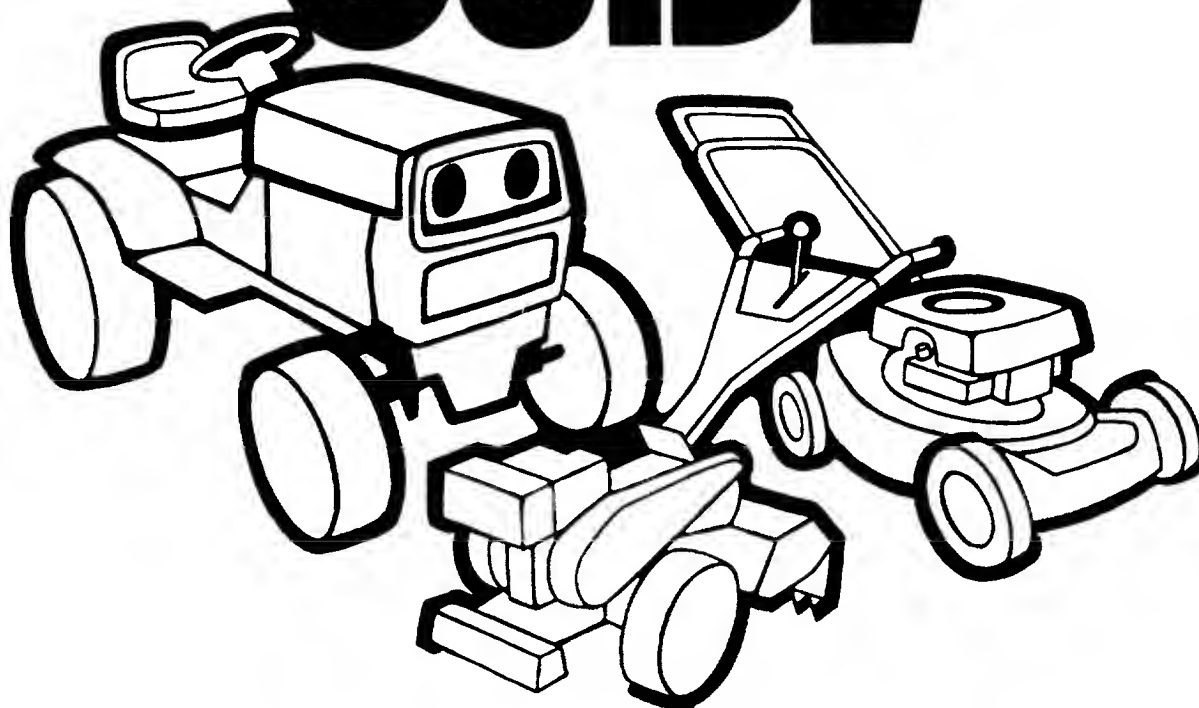


OWNER'S GUIDE



**50"
QUICK
DISCONNECT
MOWING
DECK**

**Model Number
190-993-000**

**IMPORTANT: Read Safety Rules and Instructions in
Tractor Owner's Guide Carefully**

Refer to the tractor owner's manual for safe operation practices, and correct operation and maintenance instructions. Read instructions carefully.

ASSEMBLY INSTRUCTIONS

NOTE: Reference to right or left hand side of the unit is observed from the driver's seat, facing forward.

Your mowing unit comes completely assembled except for the universal drive shaft and chute deflector.

CONTENTS OF HARDWARE PACK:

Carriage Bolts 5/16-18 x 3/4" Long (3)

Lock Washers 5/16" I.D. (3)

Hex Nuts 5/16-18 Thread (3)

ATTACHING THE CHUTE DEFLECTOR



WARNING: Do not operate your unit unless the chute deflector has been properly installed.

Place the chute deflector in position on the deck. Secure with carriage bolts, lock washers and hex nuts provided. Carriage bolts should be inserted up through the deck. Lock washers and hex nuts go on top of the chute. See figure 1. Tighten securely using a 1/2" wrench.

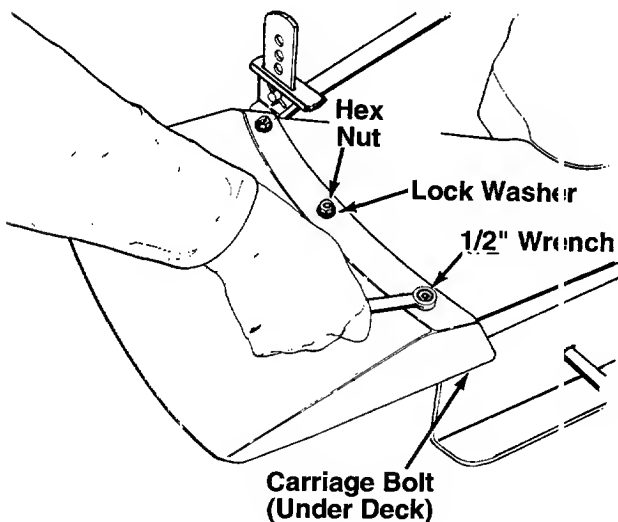


FIGURE 1.

ATTACHING THE UNIVERSAL DRIVE SHAFT

Place the universal drive on the input shaft of right angle drive. Be certain the key is in place on the input shaft. Using a 3/8" wrench, secure the drive shaft by tightening the two set screws.

ATTACHING THE DECK

1. The clevis pins, spacers and hairpin cotters on the front of the undercarriage must be set in the lowest position as shown in figure 2. Refer to "Undercarriage Locks" on page 17 of your tractor owner's guide if adjustment is required.

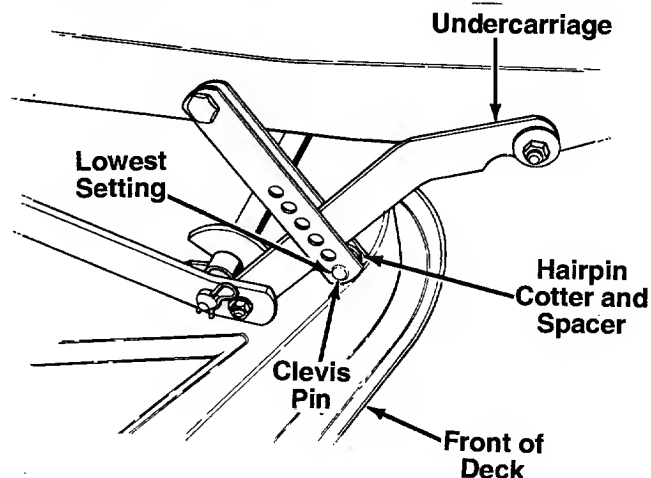


FIGURE 2.

IMPORTANT: Service the engine with gasoline and oil before starting the tractor.

2. Start the tractor, and move the hydraulic lift lever all the way backward (raised position). Stop the tractor.
3. Turn the tractor steering wheel all the way to the left. Slide the mowing deck underneath the tractor from the right hand side.
4. Slide the square end of the universal drive shaft into the universal on the deck.
5. Remove the hairpin cotters and clevis pins from each side of the deck roller bracket. Raise the deck one notch on each side. Secure with hairpin cotters and clevis pins just removed. See figure 3.

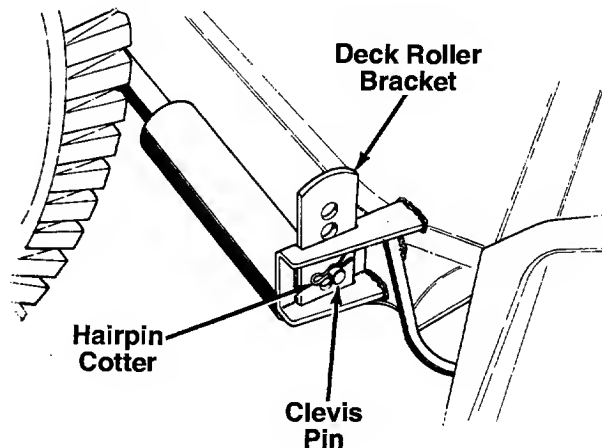


FIGURE 3.

6. Pull the release pins and raise the rear hanger locks. See figure 4.

***Not Part of the Deck**

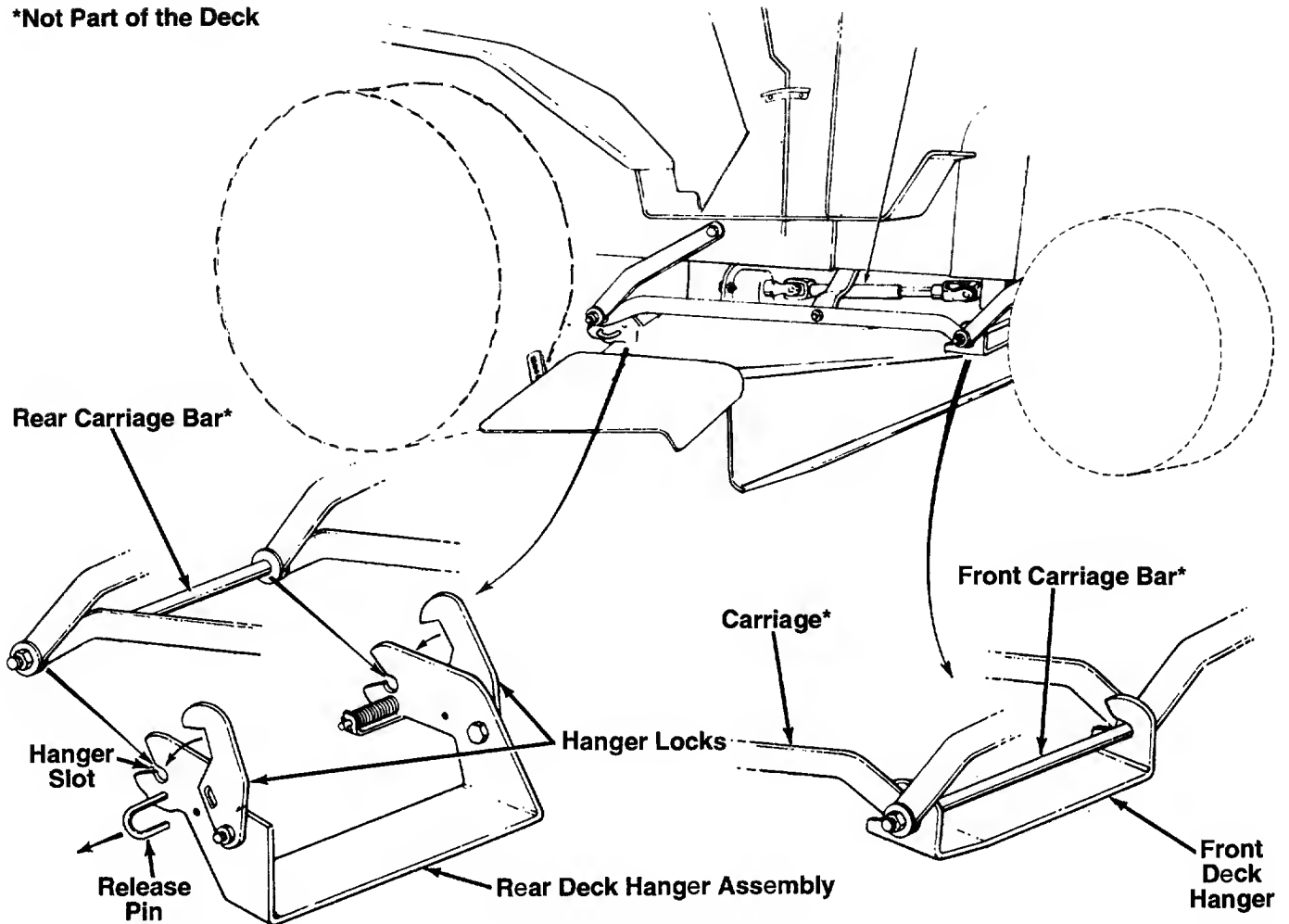


FIGURE 4.

7. Start the tractor, and lower the undercarriage as far as it will go by moving the hydraulic lift lever all the way forward. Stop the tractor.
8. Lift the front of the mowing deck and push back, making sure the front deck handle slots go over the front cross bar, between the spacers.
9. Pull the release pins and push the hanger locks down. Lock in place on both sides.
10. Attach the front quick-disconnect universal to the PTO shaft on the tractor. Apply a small amount of grease to the square shaft on the universal shaft.

OPERATION

SETTING THE CUTTING HEIGHT

There are six cutting height positions. When setting the cutting height, proceed as follows.

1. Lower the deck, using the hydraulic lift lever until the undercarriage bottoms out against the locks.
2. Remove the hairpin cotters, clevis pins and spacers from the undercarriage locks. Refer to figure 2.
3. Position the front of the deck to the lowest desired cutting height. Secure the undercarriage locks using the hardware just removed.
4. Adjust the deck roller brackets at the rear of the

deck to be in the same position as the undercarriage locks for an even cut. Refer to figure 3.

ENGAGING THE BLADES

For best results when mowing grass, use high engine or blade speed, and low travel speed.

To engage the blades, set the throttle control in FAST position. Push the PTO lever forward.

To stop the blades from turning, pull the PTO lever back until it is in the disengaged position.

NOTE: The PTO lever must be in the disengaged position before the engine will start.

LUBRICATION



WARNING: Before performing any maintenance or adjustments on the cutting deck, be sure to shut off the engine.

RIGHT ANGLE DRIVE

Check the grease level after every 25 hours of operation. The gear box contains 4 oz. of E.P.G. Lithium grease.

CARRIAGE

Lubricate the pivot points where the arms either slide or pivot after every 25 hours of operation. Use a multi-purpose automotive type grease.

BLADE SPINDLES

The blade spindles have bearings which are sealed at the factory and require no lubrication.

MAINTENANCE



WARNING: Be sure to disconnect and ground the spark plug wire before performing any repairs or maintenance.

CUTTING BLADES

When removing the cutting blades for sharpening or replacement, protect hands by using heavy gloves or a rag to grasp the cutting blade. Remove the bolt and lock washer which hold the blade and adapter to the blade spindle. Remove the blade and adapter from the spindle.

If the blade or blade adapter needs replacing, remove the two small bolts, lock washers and nuts which hold the blade to the adapter.



WARNING: Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

It is recommended that the blade always be removed from the adapter for the best test of balance.

The blade can be tested by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

Before reassembling the blade and the blade adapter to the unit, lubricate the blade spindle and the inner surface of the blade adapter with light oil. Lubricating the bolt holes, bolts and inner surface of the nuts with light oil is also recommended. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

BELT REPLACEMENT

When replacing the belt, use only an O.E.M. belt. Order part number 754-0197 from your nearest authorized service dealer.

1. Remove the mowing deck cover (Ref. 2 on page 6).
2. Disconnect the spring (Ref. 63) from the idler to obtain slack on the belt. Remove the belt.
3. Assemble the new belt, using figure 5 as a guide.

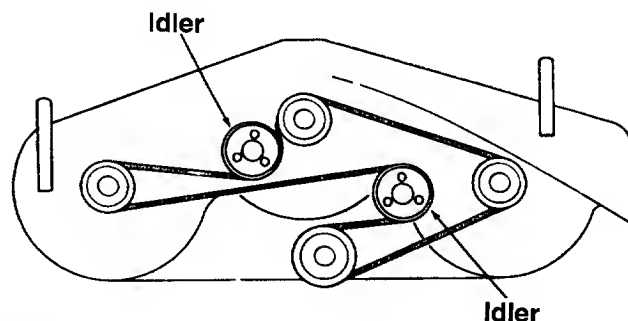


FIGURE 5.

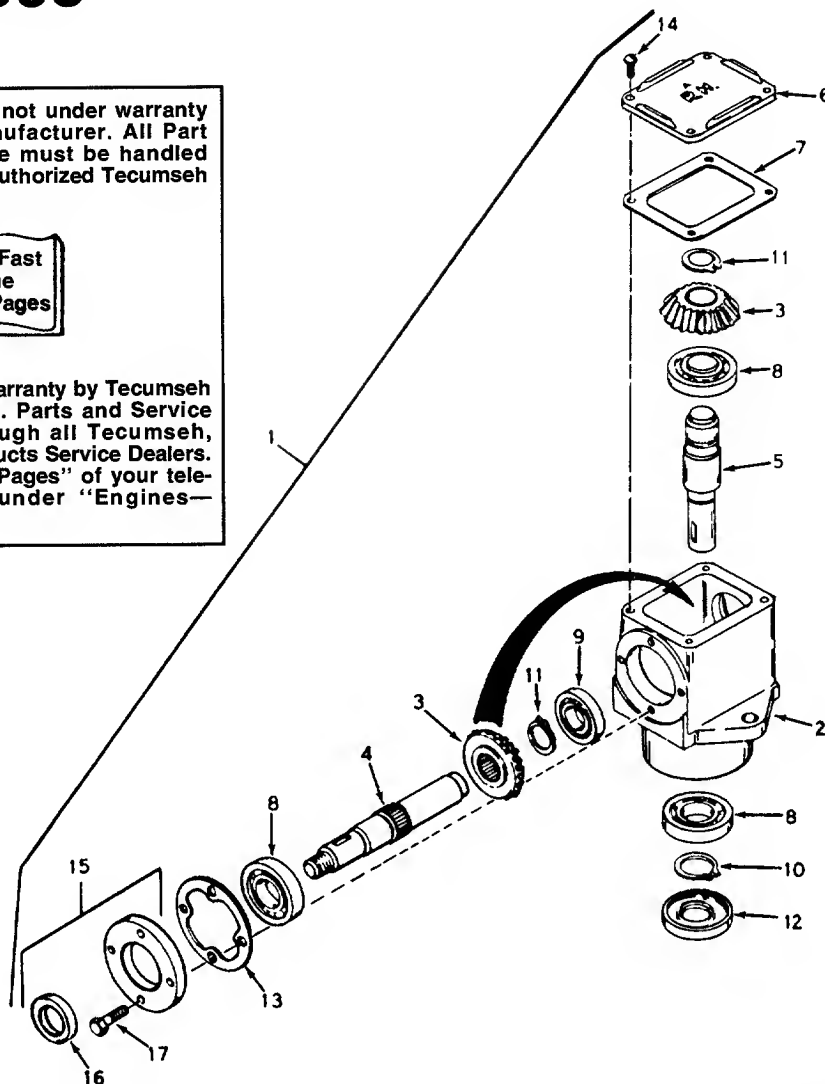
Model 993

RIGHT ANGLE DRIVE BOX (PEERLESS 2604-P91)

NOTE: This unit is not under warranty by the mower manufacturer. All Part Orders and Service must be handled through the Local Authorized Tecumseh Service Dealer.



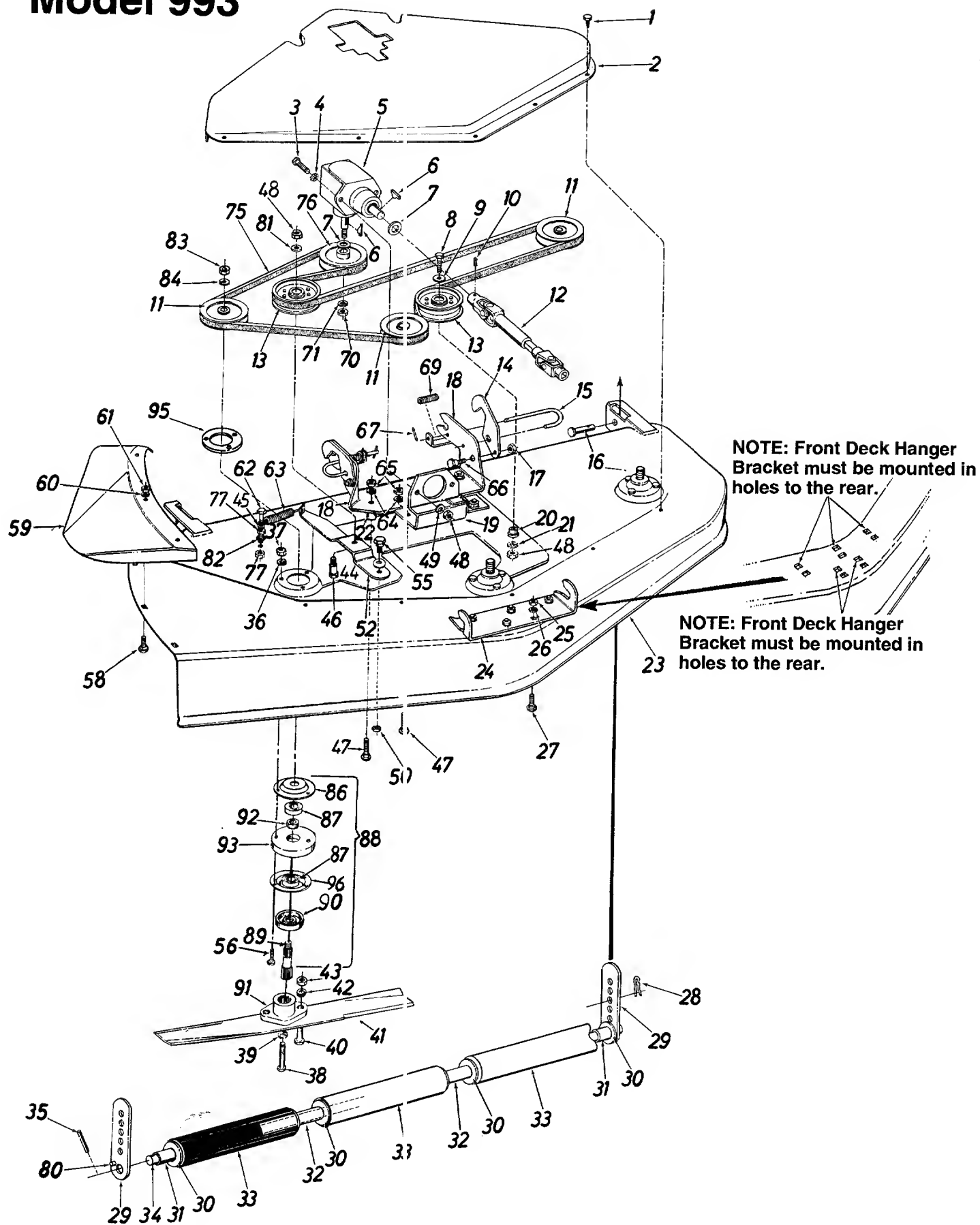
This unit is under warranty by Tecumseh Products Company. Parts and Service are available through all Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines—Gasoline."



PARTS LIST FOR RIGHT ANGLE DRIVE BOX (PEERLESS 2604-P91)

REF. NO.	PART NO.	DESCRIPTION
1	PE-794111	Head Ass'y. R.H. (Incl. Nos. 2 thru 15)
2	PE-770026	Housing, Right Angle Drive
3	PE-778046	Gear, Miter
4	PE-776149	Shaft, Input
5	PE-776129	Shaft, Output
6	PE-772034	Cover, Right Hand
7	PE-788028	Gasket, Cover
8	PE-780034	Bearing, Ball
9	PE-780024	Bearing, Ball
10	PE-788019	Ring, Snap
11	PE-788018	Ring, Snap
12	PE-788029	Seal, Oil
13	PE-788030	Gasket, Cap
14	PE-792025	Screw, Rd. Hd. Self-Tap. 10-24 x 1/2
15	PE-786029	Cap & Seal Ass'y., Retainer (Incl. Nos. 16 & 17)
16	PE-788031	Seal, Oil
17	PE-792026	Screw, Hex Hd. 1/4-20 x 7/8

Model 993



Model 993

PARTS LIST FOR MODEL 993 50" MOWING DECK

REF. NO.	PART NO.	CODE	DESCRIPTION	REF. NO.	PART NO.	CODE	DESCRIPTION
1	710-0352		Hex B-Tap Scr. 1/4-20 x .38" Lg. (10 Req'd.)	42	736-0119		L-Wash. 5/16" I.D.*
2	12651		Belt Cover	43	712-0237		Hex L-Nut 5/16-24 Thd.
3	710-0342		Hex Bolt 3/8-16 x 1.25" Lg.	44	736-0141		Spr. Wash. .445" I.D.
4	736-0148		Ext. L-Wash. 3/8" I.D.	45	736-0176		Fl-Wash. 1/4" I.D.
5	—		Right Angle Drive	46	738-0150		Shld. Scr. .625" Dia. x .96"
6	714-0126		#9 Hi-Pro Key 3/16 x 3/4" Dia.	47	710-0262		Carriage Bolt 5/16-18 x 1.5" Lg.
7	736-0181		Fl-Wash. 29/32" I.D.	48	712-0798		Hex Nut 3/8-16 Thd.*
8	710-0756		Hex Bolt 3/8-16 x 2.25" Lg.*	49	736-0169		L-Wash. 3/8" I.D.*
9	736-0300		Fl-Wash. 3/8" I.D.	50	712-0290		Hex L-Nut 7/16-14 Thd.
10	710-0357		Sq. Hd. Set Scr. 3/8-16 x .50"	52	09489		Deck Spring Idler Brkt.
11	756-0519		Deck Pulley	55	738-0163		Shld. Bolt .625" Dia. x .26"
12	717-0401		Universal Drive Shaft Ass'y.	56	710-0672		Hex Bolt 5/16-24 x 1.5" Lg. (Grade 5)
	717-0439		Universal Drive Male Half	58	710-0451		Carriage Bolt 5/16-18 x .75" Lg.*
	717-0440		Universal Drive Female Half	59	12649		Chute Guard
13	711-0306		Deck Idler Pulley	60	736-0119		L-Wash. 5/16" I.D.*
14	12564		Hanger Lock	61	712-0267		Hex Nut 5/16-18 Thd.*
15	747-0160		Release Pin	62	710-0559		Hex Bolt 1/4-28 x 1-3/4" Lg.
16	711-0310		Clevis Pin .50" Dia.	63	732-0180		Extension Spring
17	712-0158		Hex L-Nut 5/16-18 Thd.	64	736-0119		L-Wash. 5/16" I.D.*
18	12648		Rear Deck Hanger Brkt.	65	712-0267		Hex Nut 5/16-18 Thd.*
19	13705		Gear Box Mounting Brkt. Ass'y.	66	738-0296		Shld. Bolt
20	711-0598		Idler Adapter	67	715-0129		Roll Pin 1/8" Dia.
21	736-0169		L-Wash. 3/8" I.D.*	69	732-0306		Compression Spring
22	750-0776		Spacer .33" I.D. x .88" O.D.	70	712-0923		Hex L-Nut 5/8-18 Thd.
23	12640		Deck Ass'y.	71	736-0158		L-Wash. 5/8" I.D.*
24	12646		Front Deck Hanger Brkt.	75	754-0197		"V"-Belt
25	712-0267		Hex Nut 5/16-18 Thd.*	76	756-0632		Drive Pulley
26	736-0119		L-Wash. 5/16" I.D.*	77	712-0318		Hex L-Nut 1/4-28 Thd.
27	710-0451		Carriage Bolt 5/16-18 x .75" Lg.*	80	715-0108		Spring Pin Spiral 1/4" Dia. 1.00" Lg.
28	714-0101		Internal Cotter Pin	81	736-0105		Bell-Wash. 3/8" I.D. x .87" O.D.
29	12650		Height Adjuster	82	736-0329		L-Wash. 1/4" I.D.*
30	736-0188		Fl-Wash. .75" I.D. x 1.5" O.D.	83	712-0318		Hex Jam Nut 5/8-18 Thd.
31	750-0212		Spacer .758" I.D. x 1.25" O.D. x .530	84	736-0158		L-Wash. 5/8" I.D.*
32	750-0288		Spacer Tube	86	08253B		Bearing Housing
33	731-0335		Roller	87	741-0919		Ball Bearing
34	738-0295		Roller Shaft	88	14199A	N	Deck Spindle Ass'y.
35	715-0246		Roll Pin 3/16 x 1.25"	89	738-0469B	N	Spindle
36	736-0119		L-Wash. 5/16" I.D.*	90	13703		Bearing Shield
37	712-0237		Hex Cent. L-Nut 5/16-24 Thd.	91	748-0293		Blade Adapter
38	710-0180		Hex Self-Tap Scr. 3/8-24 x .75" Lg.	92	750-0456		Spacer
39	736-0217		L-Wash. 3/8" I.D. H.D.	93	14088B		Spindle Spacer Plate
40	710-0888		Hex Bolt 5/16-24 x 1" Lg.	95	14249A		Spindle Reinforcement Plate
41	742-0171		Blade 17"	96	15296A		Open Bearing Housing

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.



NOTE

Specifications subject to change without notice or obligation.

IMPORTANT: Use only Original Equipment Manufacturer (O.E.M.) V-belts when replacing belts. They are of special construction (type of cord, cord location, length, etc.). Use of V-belts other than O.E.M. belts generally will provide only temporary service. For best results, use only factory approved parts.

For Replacement Parts, Contact:
SERVICE DEPARTMENT • P.O. BOX 368022 • CLEVELAND, OHIO 44136-9722